

Work Order ID 139187

November 16, 2015 12:37:49 PM

139187

Page 1

Item ID: D4407-041

Accept

N900040100

Setup Start

NS1

Revision ID: PRELIM

Item Name: Bar Weldment

Stop

NS2

Start Date: 11/16/2015 Start Qty: 1.00

1

Cust Item ID:

Required Date: 11/30/2015 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals:

Process Plan:

SA

Date:

20151116

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run Start

NR1

Stop

NR2

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

Draw Nbr

Revision Nbr

D4407

PDI Rev D 16-10-21

DAS 9

100

0.00

100

Cold Saw

Memo

68.5

0.00

Hyd Mech

Cut blanks at 66.75"

(EXTRA MATL WILL BE TRIM OFF AT D4406-041 ASSY)

2

EL 15-12-22

110

Weld per dwg & QSI004 4.5

0.00

110

autoweld 1

Memo

0.00

Automated Welding 1

SEE NOTE 8 FOR SURFACE BUILDUP

1- WELD AS PER DWG AND QSI004 4.5

FOR AUTOMATED WELDING USE 8259 HARDCOAT

BATCH: M133209

2

EL 15-12-22

ENG 7105

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval	
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

Work Order ID 139187

November 16, 2015 12:37:50 PM

139187

Page 3

Item ID: D4407-041 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: PRELIM Stop ***NS2***
Item Name: Bar Weldment
Start Date: 11/16/2015 Start Qty: 1.00 ***1*** Cust Item ID:
Required Date: 11/30/2015 Req'd Qty: 1.00 ***1*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

150

QC21- Final Inspection - Work Order Release

0.00

150

QC

Memo

0.00

Quality Control

DAS
21
9-89

OCT 28 2016

Handwritten signatures and dates:
16-2-15
S. [Signature]
C. [Signature]
C. [Signature]

POSITIVE RECALL

EFFECTIVE DAS AUTH
RELEASED 9 DATE 16-10-21
9-89 at rev D

SM 20151116

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
3.1.10.2018 3.1.10.2018 3.1.10.2018				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐ Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐			FAULT CATEGORY Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐		
OTHER : _____					

Picklist Print

November 16, 2015 12:38:03 PM

Page 1

Work Order ID: 139187

Parent Item: D4407-041

Parent Item Name: Bar Weldment

139187

D4407-041

Start Date: 11/16/2015

Required Date: 11/30/2015

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP REV:A 15.11.16 NEW ISSUE DD VERF:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M304B0.250x0.500		Purchased	No				f	811.1863		5.852632			
M304B0 250x0 500													
304 BAR .250 x .500													

15-12-22

[Handwritten signature]

Location

Loc Qty

Loc Code

MAT

45.487

133276

33.203

m133175

12.284

MAT009

765.6993

m129366

18.967

m131748

20.949

m132332

71.6583

m133121

12

m133417

222.125

m133526

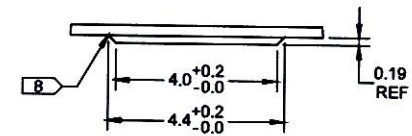
240

m133596

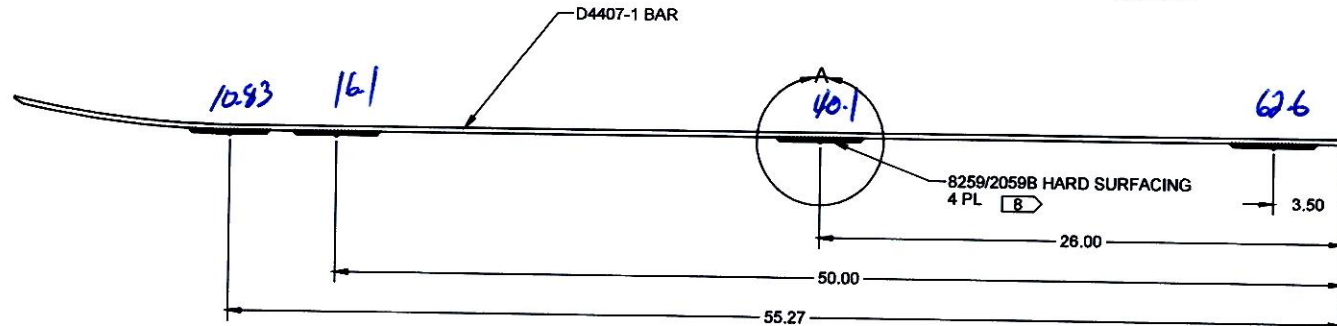
180

12

ITEM	QTY -041	P/N	DESCRIPTION
	X	D4407-041	BAR WELDMENT
1	1	D4407-1	BAR
2	A/R	8259/2059B	HARD SURFACING



DETAIL A 
4 PL
SCALE 2X



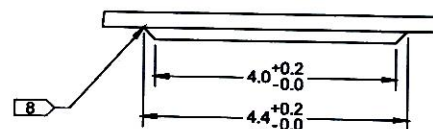
D4407-041 BAR WELDMENT 

NOTES:

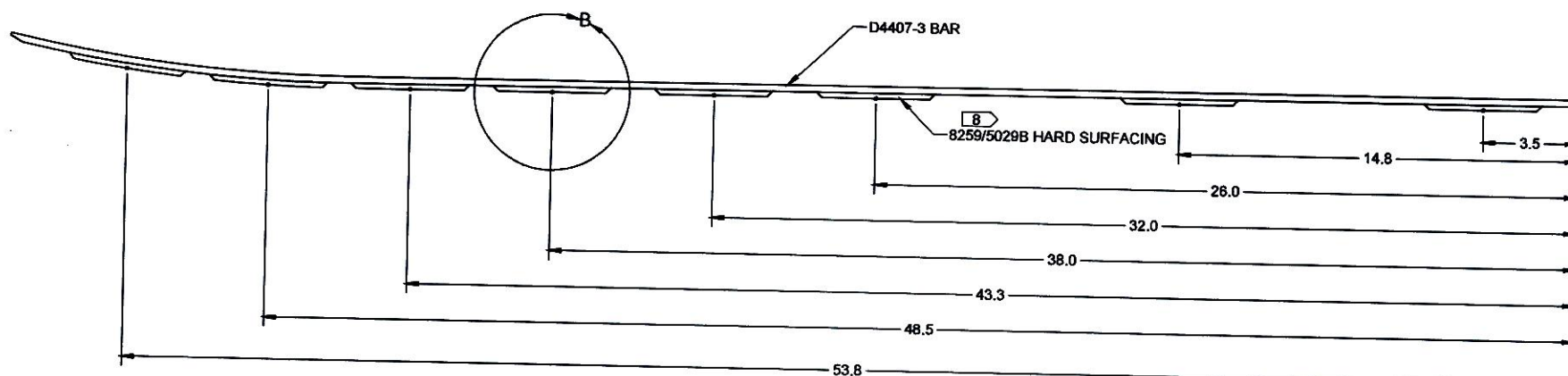
- 1) MATERIAL: N/A
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 2.83 lbs
- 8) BUILDUP HARD SURFACING 0.18 - 0.20 THICK USING 8259 ROD PER QSI 004 SECTION 4.5 (AUTOMATED WELDING) OR BUILDUP HARD SURFACING 0.19 - 0.25 THICK USING 2059B ROD PER QSI 004 SECTION 4.1 (MANUAL WELDING)

PRELIMINARY ISSUE	D	ADD D4407-041-043 WELDMENTS, ADD NOTE 9 (SH1.2 AUTOMATED WELDING)	DB	15.10.13
	C	REDESIGNED WITH SHORTER CUTS. NOTE 8 ADDED. B4-2, B4-3 0.18 WAS 0.13 (REF NCR12-2031)	AJS	13.03.11
	B	REMOVE TOOLING HOLES FOR -1/-3; RE-DESIGN D4407-3	RF	12.01.30
	A	NEW ISSUE	RF	11.08.15
	REV.	DESCRIPTION	BY	DATE
	DESIGN	RF		
	DRAWN	DB	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
	CHECKED	AJS	DRAWING NO.	REV. D1
	MFG. APPR.	DD	D4407	SHEET 1 OF 4
	APPROVED		TITLE	SCALE
	DE APPR.		BAR	NTS
	DATE	15.10.13	COPYRIGHT © 2011 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

ITEM	QTY -043	P/N	DESCRIPTION
	X	D4407-043	BAR WELDMENT
1	1	D4407-043	BAR
2	A/R	8259/5029B	HARD SURFACING



DETAIL B Δ
8 PL
SCALE 2X



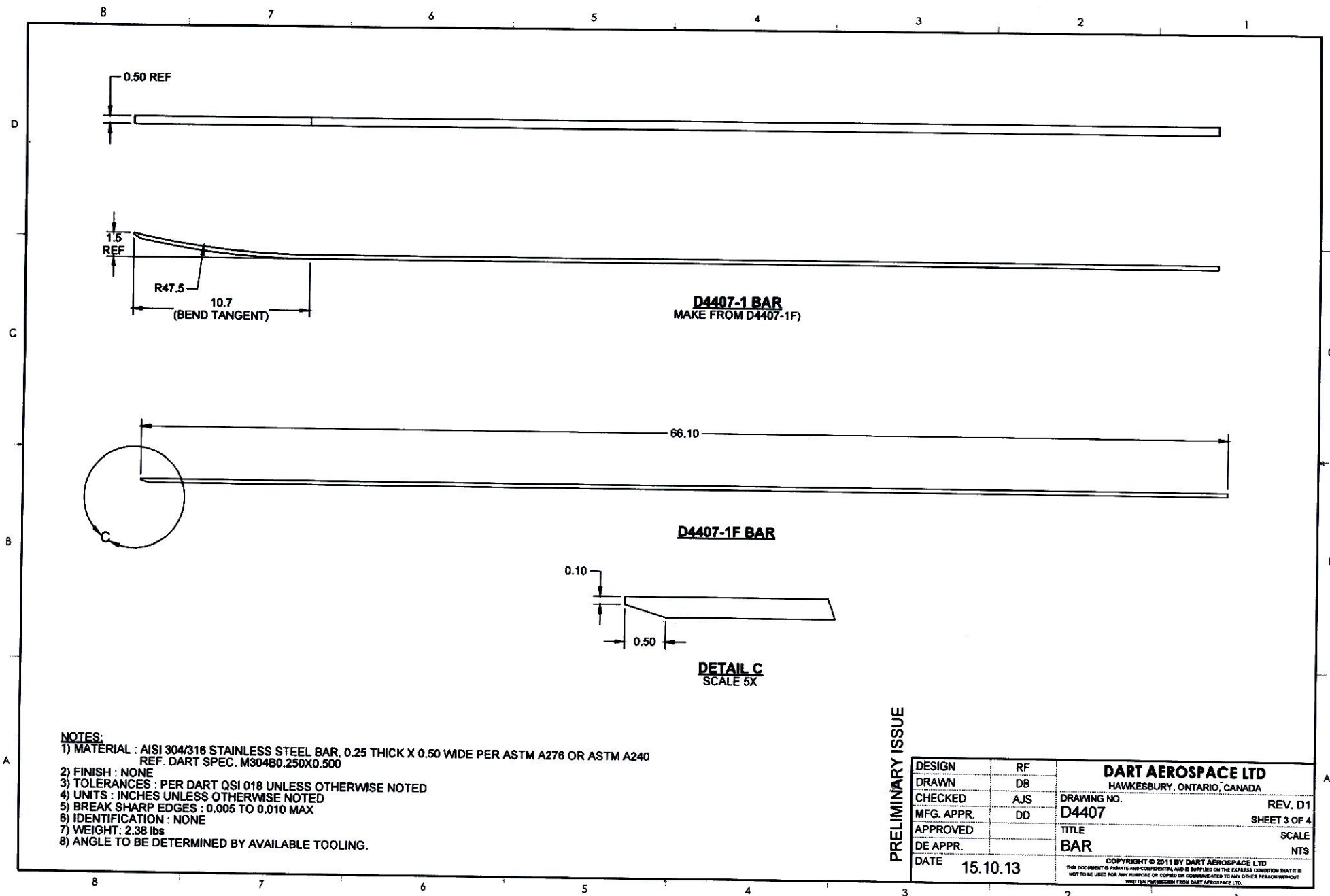
Δ **D4407-043 BAR WELDMENT**

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.1
- 7) WEIGHT: 4.28 lbs
- 8) BUILDUP HARD SURFACING 0.18 - 0.20 THICK USING 8259 ROD PER QSI 004 SECTION 4.5 (AUTOMATED WELDING) OR BUILDUP HARD SURFACING 0.19 - 0.25 THICK USING 2059B ROD PER QSI 004 SECTION 4.1 (MANUAL WELDING)

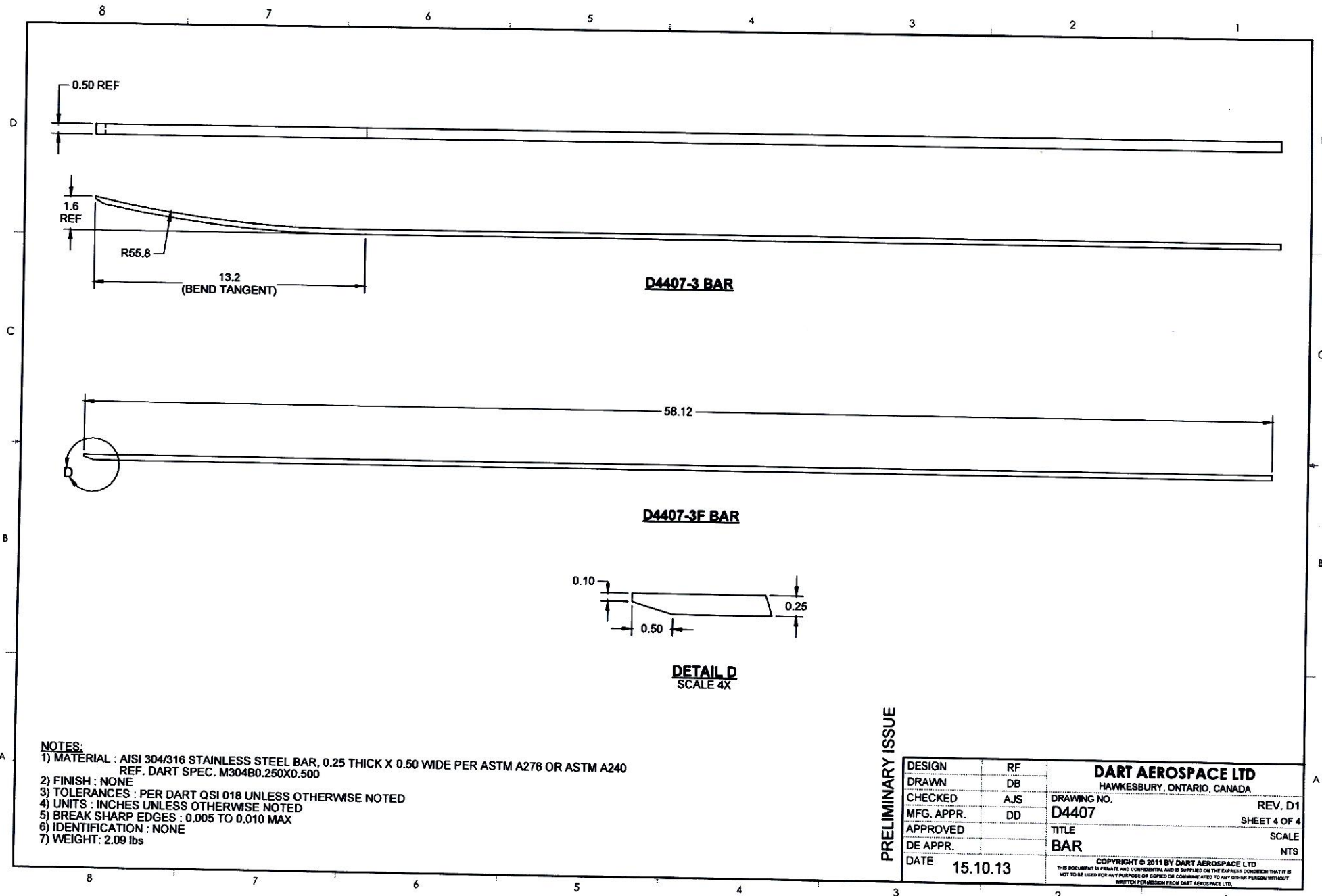
PRELIMINARY ISSUE

DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	DB		
CHECKED	AJS	DRAWING NO.	REV. D1
MFG. APPR.	DD	D4407	SHEET 2 OF 4
APPROVED		TITLE	SCALE
DE APPR.		BAR	NTS
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PRELIMINARY ISSUE

DESIGN	RF	DART AEROSPACE LTD	
DRAWN	DB	HAWKESBURY, ONTARIO, CANADA	
CHECKED	AJS	DRAWING NO.	REV. D
MFG. APPR.	DD	D4407	SHEET 3 OF 4
APPROVED		TITLE	SCALE
DE APPR.		BAR	NTS
DATE	15.10.13	COPYRIGHT © 2011 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS UNDERSTANDING THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	



Purchase Order Receipt Listing

Page 1 of 1

Thursday, November 12, 2015 3:04:13 PM

All amounts are calculated in domestic currency.

All Vendors PO ID PO30388 All Receipt Dates All Line Item Types
All Item ID/GL/WOs All Rec. Employees All Currencies
Grouped by Vendor ID

Purchase Order ID/ Curr Type	Line Nbr/ Insp Req	Project ID	Reference/ Description/ Cert Std	PO U/M/ Stock U/M	Required Date Required Qty	Recv Date/ Recv Emp	Recv Qty (PO U/M)	Cost Per Unit/ Recv Value	Inspected Qty/ Rejected Qty (PO U/M)	MRB Qty/ MRB Reject Qty	Book Amt
VendorID/Vendor Name		VC-MET002 Metaux Solutions									
PO30388	1		M304B0.250x0.500 f		11/12/2015	11/12/2015	180.0000	\$2.98	0.0000	0	\$536.89
CAD	No		304 BAR .250 x .500 f m133596		180.0000	DCUSER		\$536.89	0.0000	0	
	3		71401-45		11/12/2015	11/12/2015	1.0000	\$0.00	0.0000	0	\$0.00
	No		PROCUREMENT QUALITY CLAUSES m133596		1.0000	DCUSER		\$0.00	0.0000	0	

Mill's Certificate of Inspection

Supplier : SK NETWORKS CO., LTD.

Customer :

Commodity : STAINLESS STEEL HOT ROLLED PLAT BAR AND #4 FINISH

Specification : ASTM

Date : 08. APR. 2015

Certificate No. : AD-150408-181

Surface Finish : AP/84

Grade : 304

ORIGINAL

AD STEEL CO., LTD.
164, JUNGJIN 2-GE, JINCHUN-EUP,
JINCHUN-GUN, CHUNGBUK, KOREA
Tel. 82-31-650-7834, Fax 82-31-658-0888

No.	Order No.	Heat No.	Product No.	Surface Finish	Thickness (mm/inch)	Width (mm/inch)	Length (mm/inch)	Quantity (pcs)	Weight (kg)	Remark
1	150401165	SC52229	B153OSP100331-1	1D	6.35(0.250")	12.7(0.5")	3657(12")	365	900	
2	150401165	SC52229	B153OSP100331-1	1D	6.35(0.250")	101.6(4.0")	3657(12")	54	1,010	
3	150401165	SC52229	B154FGH100008-A	#4	6.35(0.250")	12.7(0.5")	3657(12")	350	618	
4	150401165	SC52229	B154FGH100002-3-A	#4	6.35(0.250")	25.4(1.0")	3657(12")	210	982	
5	150401165	SC52229	B154FGH100005-3-A	#4	6.35(0.250")	50.8(2.0")	3657(12")	190	1,777	

Chemical Composition (%)									
Heat No.	SC52229	C	0.021	Si	0.386	Mn	1.429	P	0.029
		S	0.003	Cr	18.125	Ni	8.050	Cu	
		Mo		N					0.048

Mechanical Properties									
Product No.	B153OSP100331-1	Tensile Strength (N/mm ²)	537	0.2% Yield Strength (N/mm ²)	235	Elongation (%)	57	Hardness (H-B)	170
	B153OSP100334-1-A		682		265		52		192
	B154FGH100008-A		662		265		52		192
	B154FGH100002-3-A		680		272		51		197
	B154FGH100005-3-A		653		277		50		201

ALL A278/479 ASME SA278/479 SAE-A55-00-5 7638 AMS5538, AMS5647J ASTM A182/A 182M-13 ASME SA182M ASTM A282-10 PRACTICE ARE ASTM A20/A20M-11A, DOD-F24860/5 ASTM A183/A183M-12B CL 10A, BE ASME SA183/SA183M GRAIN SIZE AS PER ASTM E112-99A1 NADE MR 0175 EXECUTION AS PER ASTM A484/A484M

We hereby certify, that the material described above has been tested and complies with the terms of the order contract.

AD Steel

9-89
14
15/11/16

W. J. KIM
Quality Assurance Manager

176022, 176023, 176024, 176025, 176026



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO30388

Purchase Order Date 11/6/2015 10:14:45 AM

PO Print Date 11/6/2015

Page Number 1 of 2

Order From :

VC-MET002

METAUX SOLUTIONS
2625 BOUL JACQUES-CARTIER EST
LONGUEUIL, QC J4N 1L7
CA

Ship To : DART AEROSPACE LTD
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

FAXED

Contact Name

Vendor Phone 800 558 8858

Ship To Contact

Ship To Phone

Ship Via: TST ground

Ship Acct:

Buyer

Chantal Lavoie

Customer POID

Customer Tax #

10127-2607

Terms

Net 30

Currency

CAD

FOB

Destination-Collect

Line Nbr	Reference Vendor Part Number	Description/ Mfg ID	Req Date/ Taxable	CD	Req Qty/ Unit of Measure	PO Unit Price	Extended Price
Line Comments			Promise Date				
Delivery Comments							

1	M304B0.250x0.500	304 BAR .250 x .500	11/12/2015	180.00		\$3.90	\$702.00
		Yes		f			
		11/12/2015					

MATERIAL: AISI 304/316 SS BAR OR AISI 304/316 SS PLATE
AS PER ASTM A276 OR ASTM A240

NOTE: AISI 303 NOT ACCEPTABLE

Line Total: \$702.00

3	71401-45	PROCUREMENT QUALITY CLAUSES	11/12/2015		1.00	\$0.00	\$0.00
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No

Procurement Quality Clauses

A005 right of entry

A012 chemical and physical test report

A016 personnel qualification

A017 raw material identification (as applicable)

A026 certification of material conformance

A041 quality management system

A042 dart notification by supplier

A043 retention of quality documents

11/12/2015

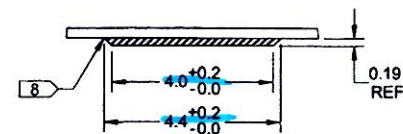
8015-11-12

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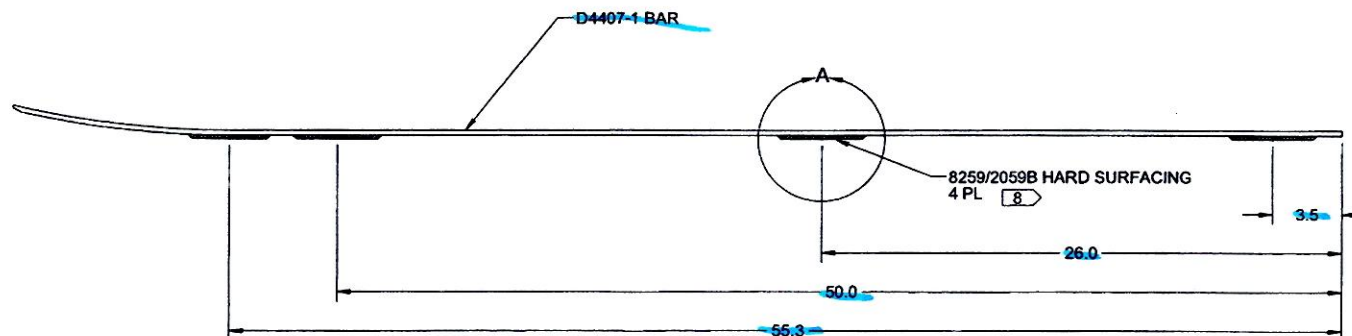
11/6/2015

ITEM	QTY	P/N	DESCRIPTION
	X	D4407-041	BAR WELDMENT
1	1	D4407-1	BAR
2	A/R	8259/2059B	HARD SURFACING

△



DETAIL A △
4 PL
SCALE 2X



D4407-041 BAR WELDMENT △

NOTES:

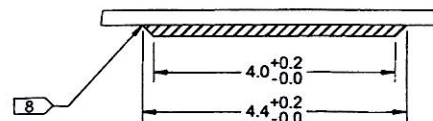
- 1) MATERIAL: N/A
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 2.88 lbs

- 8) BUILDUP HARD SURFACING 0.18 - 0.20 THICK USING 8259 ROD PER QSI 004 SECTION 4.5 (AUTOMATED WELDING) OR BUILDUP HARD SURFACING 0.19 - 0.25 THICK USING 2059B ROD PER QSI 004 SECTION 4.1 (MANUAL WELDING)

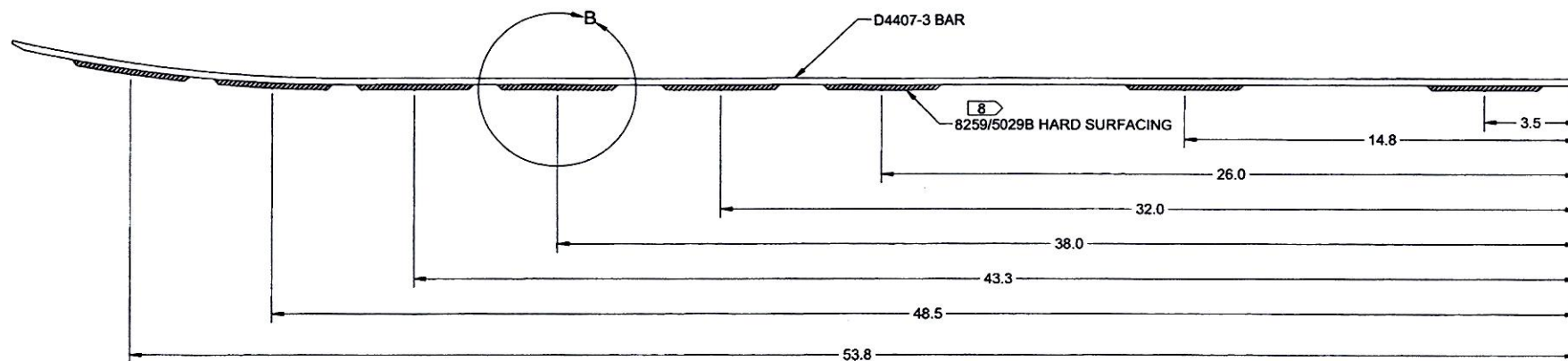
REV.	DESCRIPTION	BY	DATE
D	ADD D4407-041-043 WELDMENTS, RE-DESIGN D4407-1/-3, ADD NOTE 8 (SH 1.2 AUTOMATED WELDING), DELETE NOTE 8 (SH 3&4)	DB	15.10.13
C	REDESIGNED WITH SHORTER CUTS, NOTE 8 ADDED, B4-2, B4-3 0.18 WAS 0.13 (REF NCR12-2031)	AJS	13.03.11
B	REMOVE TOOLING HOLES FOR -1/-3; RE-DESIGN D4407-3	RF	12.01.30
A	NEW ISSUE	RF	11.08.15
DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	DB		
CHECKED	ML	DRAWING NO.	REV. D
MFG. APPR.	DD	D4407	SHEET 1 OF 4
APPROVED	WM	TITLE	SCALE
DE APPR.	DS	BAR	NTS
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RELEASED
2016-02-08
ECN 16-518
APPROVED

ITEM	QTY -043	P/N	DESCRIPTION
	X	D4407-043	BAR WELDMENT
1	1	D4407-3	BAR
2	A/R	8259/2059B	HARD SURFACING



DETAIL B
8 PL
SCALE 2X



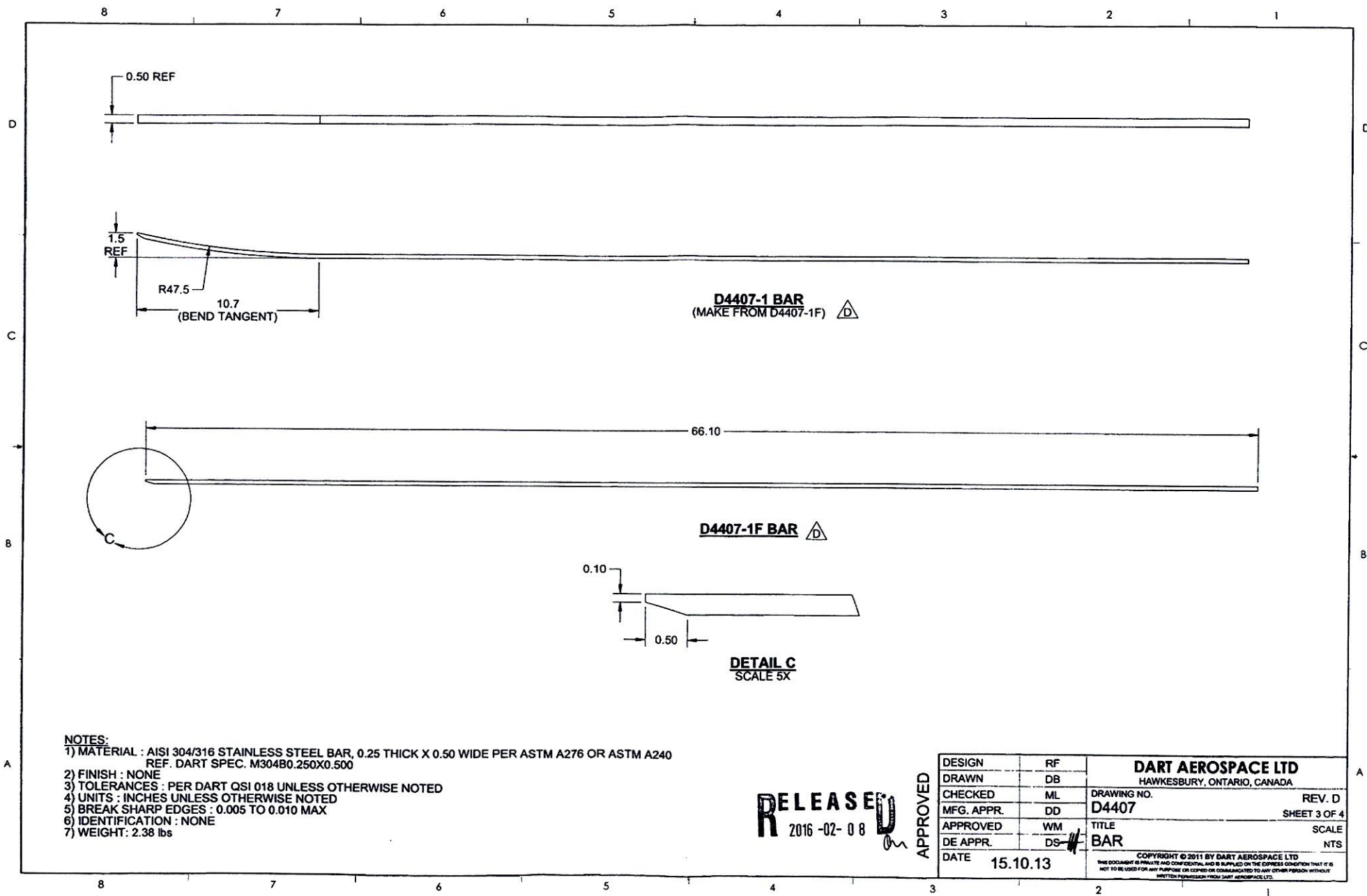
D4407-043 BAR WELDMENT

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.1
- 7) WEIGHT: 3.12 lbs
- 8) BUILDUP HARD SURFACING 0.18 - 0.20 THICK USING 8259 ROD PER QSI 004 SECTION 4.5 (AUTOMATED WELDING) OR BUILDUP HARD SURFACING 0.19 - 0.25 THICK USING 2059B ROD PER QSI 004 SECTION 4.1 (MANUAL WELDING)

RELEASED
2016-02-08
APPROVED

DESIGN	RF	DART AEROSPACE LTD	
DRAWN	DB	HAWKESBURY, ONTARIO, CANADA	
CHECKED	ML	DRAWING NO.	REV. D
MFG. APPR.	DD	D4407	SHEET 2 OF 4
APPROVED	WM	TITLE	SCALE
DE APPR.	DS	BAR	NTS
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D4407-1 BAR
(MAKE FROM D4407-1F) $\triangle$

D4407-1F BAR $\triangle$

DETAIL C
SCALE 5X

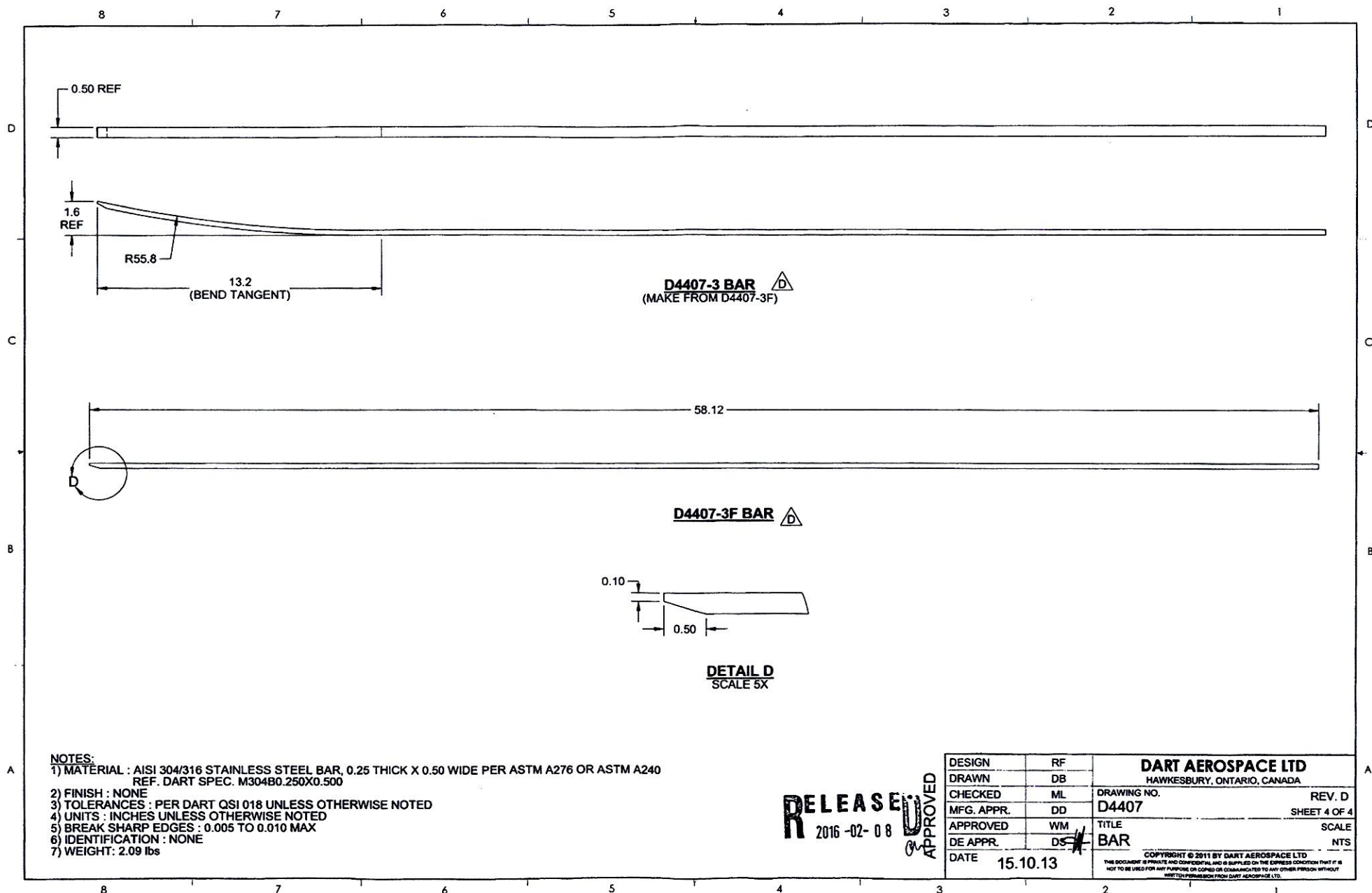
NOTES:

- 1) MATERIAL : AISI 304/316 STAINLESS STEEL BAR, 0.25 THICK X 0.50 WIDE PER ASTM A276 OR ASTM A240
REF. DART SPEC. M304B0.250X0.500
- 2) FINISH : NONE
- 3) TOLERANCES : PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS : INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES : 0.005 TO 0.010 MAX
- 6) IDENTIFICATION : NONE
- 7) WEIGHT: 2.38 lbs

RELEASED
2016-02-08

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DESIGN	RF	DART AEROSPACE LTD	
DRAWN	DB	HAWKESBURY, ONTARIO, CANADA	
CHECKED	ML	DRAWING NO.	REV. D
MFG. APPR.	DD	D4407	SHEET 3 OF 4
APPROVED	WM	TITLE	SCALE
DE APPR.	DS-#	BAR	NTS
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NOTES:

- 1) MATERIAL : AISI 304/316 STAINLESS STEEL BAR, 0.25 THICK X 0.50 WIDE PER ASTM A276 OR ASTM A240
REF. DART SPEC. M304B0.250X0.500
- 2) FINISH : NONE
- 3) TOLERANCES : PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS : INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES : 0.005 TO 0.010 MAX
- 6) IDENTIFICATION : NONE
- 7) WEIGHT: 2.09 lbs

RELEASE 2016-02-08

APPROVED

DESIGN	RF	DART AEROSPACE LTD	
DRAWN	DB	HAWKESBURY, ONTARIO, CANADA	
CHECKED	ML	DRAWING NO.	REV. D
MFG. APPR.	DD	D4407	SHEET 4 OF 4
APPROVED	WM	TITLE	SCALE
DE APPR.	DS	BAR	NTS
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